

### REMARKS

The claims remaining in the present application are Claims 1-24. Claims 1, 2, 4, 9-12, 17 and 18 have been amended. No new matter has been added. For example, support for the amendments to the independent Claims 1, 9 and 17 can be found among other places in the instant application at page 18 lines 4-19, page 24 line 11 to page 25 line 3, page 16 line 5 to page 17 line 2, and page 37 lines 8-22.

### DOUBLE PATENTING

The Office Action provisionally rejected Claims 1-24 under the ground of nonstatutory obviousness-type double patenting as being unpatentable over

- (i) claims 2-8, 10-16 and 18-27 of copending Application Serial No. 09/902,928,
- (ii) Claims 1-23 of copending Application Serial No. 09/858,251,
- (iii) Claims 1-7, 9-15, 17-23 of copending Application Serial No. 09/902,880,
- and
- (i) (iv) Claims 1-21 of copending Application Serial No. 09/955,264.

A terminal Disclaimer is filed herewith, therefore, Applicants believe that these rejections have been addressed.

### 35 U.S.C. §101

#### Claims 1, 9 and 17

Claims 1, 9 and 17 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

The Office Action asserts that “characteristics of said market,” “bidding behavior,” “how bidders behave,” “information held private by a bidder,” and “estimated structure of said market” are abstract ideas. Applicants respectfully submit that the features recited by independent Claim 1, 9 and 17 are quantifiable and measurable and the results of the recited embodiments are concrete and

tangible for at least the reasons that independent Claims 1, 9 and 17 have amended to recite “selecting characteristics of said market based at least in part on stored historical data that includes data for historical auctions performed in the past for a plurality of bidders...selecting a relevant bidding model ...based on segments of said historical auctions related to a specified item...selecting ...estimated structure of said market...by inverting said relevant bidding model” and recite “...information held privately by a bidder, that is determined based at least in part on said historical auctions...”

Further, the section “Determine Whether the Claimed Invention Preempts a 35 U.S.C. 101 Judicial Exception (Abstract Idea, Law of Nature, or Natural Phenomenon)” of MPEP 2106 provides guidelines for determining whether an embodiment recited by a claim pertains to an abstract idea. These guidelines indicate that an idea is abstract if the recited embodiment results in “every ‘substantial practical application’ of an abstract idea.” Applicants respectfully submit that the embodiments recited by independent Claims 1, 9 and 16 are not abstract ideas because the embodiments recited by independent Claims 1, 9 and 16 would not result in “every ‘substantial practical application’ of an abstract idea” for at least the reason that independent Claims 1, 9 and 16 recite “selecting characteristics of said market based at least in part on stored historical data that includes data for historical auctions performed in the past for a plurality of bidders...selecting a relevant bidding model ...based on segments of said historical auctions related to a specified item...selecting ...estimated structure of said market...by inverting said relevant bidding model” and to recite “...information held privately by a bidder, that is determined based at least in part on said historical auctions...”

### 35 U.S.C. §112

#### Claims 1-24

At the top of page 10, the Office Action rejected Claims 1-24 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The Office Action goes on to reiterate a subset of the quotations pertaining to the rejected claims that were asked in the previous Office Action. Applicants provided answers to all of the original questions. However, the current Office Action reiterated a subset of the questions and provided no response to Applicants' answers. Applicants respectfully request that the next Office Action fully reply to all of Applicants remarks instead of making global statements such as "they are not persuasive."

Applicants also respectfully point out that MPEP 2163.04 states "The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97" (emphasis added). Therefore, Applicants respectfully requests that if future Office Actions make rejections under 35 U.S.C. 112, first paragraph, that the future Office Actions accompany the rejections with a preponderance of evidence as to why a person skilled in the art would not recognize in Applicants' disclosure a description of the invention defined by the claims instead of asking Applicants' to answer a series of questions.

#### 35 U.S.C. §103

#### Claims 1, 3, 4, 6, 7, 8, 11, 12, 14, 15, 16, 17, 19, 20, 22, 23 and 24

On page 15, the Office Action rejected Claims 1, 3, 4, 6, 7, 8, 11, 12, 14, 15, 16, 17, 19, 20, 22, 23 and 24 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,871,190 by Seymour et al. (referred to hereinafter as "Seymour") in view of Official Notice. Applicants respectfully submit that embodiments of the present invention are neither taught nor suggested by Seymour.

"As reiterated by the Supreme Court in KSR, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries" including "[a]scertaining the differences between the

claimed invention and the prior art” (MPEP 2141(II)). “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious” (emphasis in original; MPEP 2141.02(I)). Appellant notes that “[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art” (emphasis added; MPEP 2141(III)).

“[A] reference will teach away if it suggests that the line of development flowing from the reference’s disclosures is unlikely to be productive of the result sought by the applicant. *In re Gurley*, 31 USPQ2d 1130 (Fed. Cir. 1994).”

Applicants respectfully note that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention” (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)).

Independent Claim 1 recites,

A method for determining an auction format for a market, said method comprising the steps of:

selecting characteristics of said market based at least in part on stored historical bids data that includes data for historical auctions performed in the past for a plurality of bidders;

selecting a relevant bidding model that specifies past bidding behavior as a function of information held privately by a bidder, that is determined based at least in part on said historical auctions data, and said characteristics of said market based on segments of said historical auctions related to a specified item;

selecting at least a first estimated structure of said market, which describes at least a first factor that affects how bidders behave, and a second estimated structure of said market, which describes a second factor that affects how bidders behave, at least in part by inverting said relevant bidding model;

- predicting a first bidding behavior utilizing said first estimated structure of said market, said characteristics of said market and said relevant bidding model;
- predicting a first outcome of said market based on said first bidding behavior;
- predicting at least a second bidding behavior utilizing at least said second estimated structure of said market, said characteristics of said market and said relevant bidding model;
- predicting a second outcome of said market based on at least said second bidding behavior prediction; and
- determining said auction format for said market by evaluating said first outcome of said market and at least said second outcome of said market.

Applicants understand Seymour to teach an interactive auction system that automatically generates buying and selling strategies based on input relating to the merchandise to be auctioned (Col. 2 lines 41-43). For example, Applicants understand Seymour to generate evolved strategies for all possible price scenarios based on the merchandise at the auction (and therefore going to be auctioned in the future) and for each type of auction type using genetic algorithms (Col. 4 lines 40-64). The evolved strategies are used to generate specific bidding and selling strategies based on specific data provided by specific bidders and sellers (Col. 5 lines 11-16). In other words, a specific bidding strategy is generated based on data from a specific bidder and a specific selling strategy is generated based on data from a specific seller.

Applicants understand Seymour to provide more information on generating a specific bidding strategy based on data provided by a specific bidder at Col. 5 line 63 to Col. 6 line 39.

Applicants understand Seymour to provide more information on generating a specific selling strategy based on data provided by a specific seller at Col. 6 lines 39-64. More specifically, with reference to Figure 5 of Seymour, at step 204, data is entered into the system by a specific seller concerning the item the seller wishes to sell. This information includes the minimum price the seller is prepared to accept (Col. 6 lines 46-52). At step 206, an optimum auction type for the auction is

generated by a selling strategy generator based on the data provided by the specific seller (col. 6 lines 56-64). In particular, an optimum value is generated by the selling strategy generator 54 based on data provided solely by the specific seller. Further, Applicants understand Seymour to teach that the optimum type of auction is determined solely on data provided by a specific seller (Col. 6 lines 56-62).

Referring to Col. 3 lines 1-7, Applicants understand Seymour to teach that agents are used to implement the specific bidder strategies and specific seller strategies and that the agents interact to perform the auction.

Applicants understand Seymour to teach away from “selecting characteristics of said market based at least in part on stored historical bids data that includes data for historical auctions performed in the past for a plurality of bidders.” Instead Applicants understand Seymour to teach information that pertains to merchandise that is at an auction, and therefore going to be auctioned in the future, and information that is provided by specific bidders and specific sellers who are interested in participating in a future auction.

Since, Applicants understand Seymour to teach a bidding strategy that is generated based on specific data provided by a specific bidder and a selling strategy that is generated based on specific data provided by a specific seller (Col. 5 lines 11-15), Applicants understand Seymour to teach away from “selecting a market strategy based on stored historical bids data that includes data for bids performed in the past by a plurality of bidders.”

Applicants understand Seymour to teach away from “information held privately by a bidder.” For example, Applicants understand Seymour to use three categories of inputted information. One category of information is provided by a specific bidder. A specific bidder would not be motivated to provide privately held information since that would put the bidder at a disadvantage. A second category of information pertains to merchandise that is at an action and therefore would not

qualify as “information held privately by a bidder, which is determined based at least in part on said historical auctions.” Further, Seymour teaches using the information that pertains to merchandise at an auction as a part of generating evolved strategies for all possible price scenarios based on the merchandise that is at an auction.

Since the evolved strategies are for all possible price scenarios, Applicants understand Seymour to teach away from “information held privately by a bidder.” A third category of information is provided by a seller and therefore would not qualify as bidder information. Therefore, Applicants understand all three categories of Seymour’s inputted information to teach away from “information held privately by a bidder.”

Since, Applicants understand Seymour to teach that the optimum type of auction is determined based solely on data provided by a specific seller (Col. 5 lines 56-62), Applicants understand Seymour to teach away from “determining said auction format for said market by evaluating said first outcome of said market and at least said second outcome of said market” as well as all of the other features of Claim 1 that are used as a part of predicting said first outcome of said market and predicting said second outcome of said market.

Further, since Applicants understand Seymour to teach a bidding strategy that is generated based on specific data provided by a specific bidder and a selling strategy that is generated based on specific data provided by a specific seller (Col. 5 lines 11-15) and to teach generating evolved strategies based on the merchandise that is at the auction (to be auctioned in the future), Applicants understand Seymour to teach away from “selecting a relevant bidding model... based on segments of historical auctions related to a specified item” (emphasis added).

Applicants do not understand Seymour to teach, describe or suggest “selecting...a first estimated structure of said market...and a second estimated structure of said market...at least in part by inverting said relevant bidding model.” For example, the Office Action asserts that Seymour teaches selecting estimated

structures of a market at Col. 4 lines 30-49 and Col. 5 lines 11-15. Applicants understand Seymour to teach at Col. 4 lines 30-49 generating evolved strategies based on certain assumptions to cover all possible price scenarios that could be achieved for the merchandise that is at an auction. Applicants understand Seymour to teach at Col. 5 lines 11-15 that the evolved strategies are used to generate specific bidding and selling strategies based on specific data provided by specific bidders and specific sellers. In contrast, Claim 1 recites, "selecting...a first estimated structure of said market...and a second estimated structure of said market...at least in part by inverting said relevant bidding model" (emphasis added).

Since Applicants do not understand Seymour to teach, describe or suggest "first and second estimated structures of said market," Applicants respectfully submit that Seymour does not teach predicting bidding behaviors utilizing estimated structures of said market.

Further, Applicants understand Seymour to teach away from predicting bidding behaviors because the information that Seymour uses is either explicitly entered by the bidder, thus not predicted, pertains to merchandise at an auction, thus is not based on a relevant bidding model that is determined based at least in part on analyzing said historical auctions, or does not qualify as bidder behavior as it pertains to a seller.

Since, Applicants do not understand Seymour to teach, describe or suggest predicting bidding behavior, Applicants do not understand Seymour to teach, describe or suggest predicting an outcome of a market based on a bidding behavior prediction.

Since Applicants understand Seymour to select an auction format based only on data provided by a specific seller, Applicants understand Seymour to teach away from "determining said auction format for said market by evaluating said first outcome of said market and at least said second outcome of said market."



The Office Action states in the second paragraph on page 18 "... that it is old and well-known that information held by a buyer (e.g., amount they are willing to pay, risk tolerance etc.) coupled with their understanding of existing market conditions (e.g., rules, demand etc.) influences behavior..." However, Applicants do not understand the Official Notice to remedy the deficiency in the embodiment recited by Claim 1 for at least the reason that Applicants understand Seymour to teach away from "information held privately by a buyer."

#### RESPONSE TO ARGUMENTS SECTION

The Office Action states with regards to the 35 U.S.C. 112, first paragraph rejection of the previous Office Action, "Applicant's arguments have been fully considered but they are not persuasive. Note some rejections have been removed however, in light of applicant's amendment." Applicants respectfully request that the next Office Action fully reply to all of Applicants' remarks instead of making global statements such as "they are not persuasive." Applicants reiterate that according to MPEP2163.04 that "The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97" (emphasis added).

The Office Action states in the last paragraph on page 27, "Although not explicitly stated, the bidding strategy in Seymour (i.e., bidding model) makes selecting a bidding behavior as a function of information held privately by a bidder and said characteristics of said market obvious." Applicants understand Seymour to use three categories of inputted information. One category of information is provided by a specific bidder. A specific bidder would not be motivated to provide privately held information since that would put the bidder at a disadvantage. A second category of information pertains to merchandise that is at an auction and therefore would not qualify as "information held privately by a bidder, which is determined

based at least in part on said historical auctions.” A third category of information is provided by a seller and therefore would not qualify as bidder information.

The Office Action states in the last two sentences of the first paragraph of page 28 that Seymour teaches “information held privately by a bidder” at Col. 4 lines 30+-Col. 5 line 15. Applicants understand Seymour to teach at Col. 4 line 30-Col. 5 line 15 generating evolved strategies to cover all possible price scenarios for all types of auctions for the merchandise that is currently at an auction. Seymour uses the evolved strategies in conjunction with data provided by a specific bidder to generate a specific bidding strategy for that specific bidder. Applicants respectfully submit that the evolved strategies would not teach “information held privately by a bidder, that is determined based at least in part on said historical auctions” because they cover all possible price scenarios and they are based on information for merchandise that is currently at an auction. Applicants respectfully submit that the data provided by a specific bidder would not teach “information held privately by a bidder” because a bidder would not be motivated to divulge their private information, thus, putting them at a disadvantage in the auction.

The Office Action states in the last two sentences of page 28, “Although the private information and characteristics of the market are not explicitly discussed as being a function of the bidding behavior.” Applicants respectfully point out for clarification of the record that this is a misquotation of the embodiments recited by the claims. The Office Action goes on to state at the last sentence of page 28 and proceeding to page 29, “It is old and well-known that information held by a buyer (e.g., amount they are willing to pay, risk tolerance etc.) coupled with their understanding of existing market conditions (e.g., rules, demand etc.) influences behavior.” Applicants respectfully submit that “selecting a relevant bidding model that specifies bidding behavior as a function of information held privately by a bidder” is not old and well known. Since Applicants understand Seymour to teach away from “selecting a relevant bidding model that specifies bidding behavior as a function of information held privately by a bidder,” Applicants understand Seymour to provide

evidence that “selecting a relevant bidding model that specifies bidding behavior as a function of information held privately by a bidder” is not old and well known.

The Office Action states in the third paragraph on page 29, “The claimed invention states, ‘predicting a bidding behavior’ which is broad enough to cover the bidding behavior of all the various bidders.” First, Applicants respectfully point out for clarification of the record that the Office Action has misquoted the embodiments recited by the Claims. Second, Applicants respectfully point out that “predicting ... a first bidding behavior...predicting...a second bidding behavior” utilizes respectively “first estimated structure of said market” and “second estimates structure of said market.” Further the estimated structures of said market are selected at least in part by inverting said relevant bidding model. Said relevant bidding model specifies past bidding behavior as a function of information held privately by a bidder and is selected based on segments of historical auctions related to a specified item. Therefore, the first bidding behavior and the second bidding behavior recited by Claim 1 would not cover “the bidding behavior of all the various bidders” as the Office Action asserts.

The Office Action states in the first paragraph, “[A] reference will teach away if it suggests that the line of development flowing from the reference’s disclosures is unlikely to be productive of the result sought by the applicant. *In re Gurley*, 31 USPQ2d 1130 (Fed. Cir. 1994).” In light of this, Applicants reiterate that Applicants understand Seymour to teach generating evolved strategies that cover all pricing scenarios for the merchandise that is currently at an auction, teaches generating specific strategies for specific bidders and specific sellers based on specific data from the respective bidders and sellers. Therefore, Applicants understand Seymour to suggest a line of development that is unlikely to result in “selecting a relevant bidding model that specifies past bidding behavior as a function of information held privately by a bidder, that is determined based at least in part on analyzing said historical auctions, and said characteristics of said market based on segments of said historical auctions related to a specified item.”

Further, since Applicants understand Seymour to teach that the auction format is determined solely on the basis of specific information obtained from a specific user, Applicants understand Seymour to suggest a line of development that is unlikely to result in “determining said auction format for said market by evaluating said first outcome of said market and at least said second outcome of said market.”

Applicants understand Seymour to teach away from many other recited features as discussed herein.

The Office Action states, “Applicant has a general allegation of long felt need...It is noted however, that an affidavit or declaration under 37 CFR 1.132 has not been submitted.” Applicants respectfully submit that since Applicants understand the only reference cited by the Office Action to fail to teach and even teaches away from many of the features recited by the claims, Applicants understand this to be evidence of long felt need.

#### SUMMARY

For at least these reasons that Applicants do not understand Seymour to teach “selecting characteristics of said market based at least in part on stored historical data that includes data for historical auctions performed in the past for a plurality of bidders...selecting a relevant bidding model that specifies past bidding behavior as a function of information held privately by a bidder, that is determined based at least in part on said historical auctions data, ...based on segments of said historical auctions related to a specified item...selecting ...estimated structure of said market...by inverting said relevant bidding model...determining said auction format for said market by evaluating said first outcome of said market and at least said second outcome of said market” as recited by Claim 1, Applicants respectfully submit that independent Claim 1 should be patentable. Applicants respectfully submit that independent Claims 9 and 17 should also be patentable since independent Claim 9 recites, “a market-characteristic-based-on-historical-auctions-

selector...a relevant-bidding-model-selector-based-on-privately-held-bidder-information-and-based-on-segments-of-past-auctions...a determiner-of-auction-format-based-on-evaluating-market-outcome...” and independent Claim 17 recites, “selecting characteristics of said market based at least in part on stored historical data that includes data for historical auctions performed in the past for a plurality of bidders...selecting a relevant bidding model that specifies past bidding behavior as a function of information held privately by a bidder, that is determined based at least in part on said historical auctions data, ...based on segments of said historical auctions related to a specified item...selecting ...estimated structure of said market...by inverting said relevant bidding model.....determining said auction format for said market by evaluating said first outcome of said market and at least said second outcome of said market.”

Claims 1, 3, 4, 6, and 8 depend on Claim 1. Claims 11, 12, 14, 15 and 16 depend on Claim 9. Claims 19, 20, 22, 23 and 24 depend on Claim 17. These dependent claims include all of the limitations of their respective independent claims. Further, these dependent claims include additional limitations which further make them patentable. Therefore, these dependent claims should be patentable for at least the reasons that their respective independent claims should be patentable.

### CONCLUSION

In light of the above listed amendments and remarks, reconsideration of the rejected claims is requested. Based on the arguments and amendments presented above, it is respectfully submitted that Claims 1-24 overcome the rejections of record. For reasons discussed herein, Applicants respectfully request that Claims 1-24 be considered by the Examiner. Therefore, allowance of Claims 1-24 is respectfully solicited.

Should the Examiner have a question regarding the instant amendment and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,  
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